Robotics & Computer-Integrated Manufacturing

Volume 2 Number 1 **1985**

Contents

Papers

M. C. LEU — 1 Robotics software systems

P. K. WRIGHT — 13 A manufacturing hand

J. A. BUZACOTT — 25 Modelling manufacturing systems

S. TAKATA, M. OGAWA, P. BERTOK, J. OOTSUKA, K. MATUSHIMA and T. SATA — 33 Real-time monitoring system of tool breakage using Kalman filtering

S. MAKINOUCHI and K. YAMAGATA — 41 Computer numerical control for assuring the machining accuracy of contour milling

H. ASADA and Y. SAWADA — 49 Design of an adaptable tool guide for grinding robots

S. H. KIM and N. P. SUH — 55 Application of symbolic logic to the design axioms

T. WATANABE and M. SAKAMOTO — 65 On-line scheduling for adaptive control machine tools in FMS

A. ETZIONI and P. JARGOWSKY — 75 The two-track society

83 NTIS Reports

i New patents and published patent applications from the United States and over 30 other countries

VOL.
2
1985

Indexed in *Management Contents*

ISSN 0736-5845
(704)

Robotics & Computer-Integrated Manufacturing

Volume 2 Number 2 **1985**

Contents

Papers

M. E. MERCHANT — 89 Computer-integrated manufacturing as the basis for the factory of the future

J. HATVANY — 101 Intelligence and cooperation in heterarchic manufacturing systems

M. GOLDSTEIN, P. K. WRIGHT and D. A. BOURNE — 105 A fast algorithm for high accuracy gauging using computer vision

G. SPUR, I. FURGAC, A. DEUTSCHLÄNDER, J. BROWNE and P. O'GORMAN — 115 Robot planning system

L. M. SWEET — 125 Sensor-based control systems for arc welding robots

D. D. GROSSMAN, R. C. EVANS and P. D. SUMMERS — 135 The value of multiple independent robot arms

S. P. PATARINSKI, M. S. KONSTANTINOV, V. B. ZAMANOV and D. N. NENCHEV — 143 Structural properties in kinematics of robots, articulated mechanisms and prosthetic arms

B. GAÁL and T. VÁRADY — 149 Experiences and further development of the FFS (Free-Form Shapes) CAD/CAM system

155 NTIS Reports

i Software Survey Section

Indexed in *Management Contents*

ISSN 0736-5845
(704)

Robotics & Computer-Integrated Manufacturing

Volume 2 Number 3/4 **1985**

Selected Papers from the Workshop on Robot Standards, held at Detroit, Michigan, 6–7 June 1985

Contents

Editorial
L. S. HAYNES — 161 Opportunities and issues in robot standards

Papers
J. F. BLOODGOOD — 165 An overview of standards development for robots and robotic systems

G. G. HUNT and J. R. TOMLINSON — 191 EIA project 1393: a high level communications standard

M. L. FITZGERALD and A. J. BARBERA — 201 A low-level control interface for robot manipulators

D. GROSSMAN — 215 AML as a plant floor language

U. REMBOLD, C. BLUME and B. J. FROMMHERZ — 219 The proposed robot software interfaces SRL and IRDATA

K. LAU, R. HOCKEN and L. HAYNES — 227 Robot performance measurements using automatic laser tracking techniques

N. G. DAGALAKIS and D. R. MYERS — 237 Use of coherence analysis for the evaluation and adjustment of robot gear performance

D. S. ACKERSON and D. R. HARRY — 247 Theory, experimental results, and recommended standards regarding the static positioning and orienting precision of industrial robots

J. C. COLSON and N. D. PERREIRA — 261 Quasi-static performance of robots

S. MOHRI, K. TAKEDA, S. H. K. MATSUZAKI and Y. HYODO — 279 Robot language from the standpoint of FA system development—an outline of FA-BASIC

I Software Survey Section

VOL.
2
1985

Indexed in *Management Contents*

ISSN 0736–5845